

### REMARKS

This is a full and timely response to the final Official Action mailed **August 7, 2008** (the “Office Action” or “Action”). Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

#### Request for Continued Examination:

Applicant hereby requests Continued Examination for this application and entry and consideration of this amendment consequent thereto.

#### Claim Status:

Under the imposition of a previous Restriction Requirement, claims 23-51 were withdrawn from consideration and cancelled without prejudice or disclaimer. By the foregoing amendment, claims 1, 3, 5, 7, 12 and 16 have been amended. Additionally, claims 4 and 15 have been cancelled without prejudice or disclaimer. Thus, claims 1-3, 5-14 and 16-22 are currently pending for further action.

#### Prior Art:

Claims 1-3, 8-14 and 19-22 were rejected under 35 U.S.C. § 103(a) as obvious in light of the combined teachings of U.S. Patent Application Publication No. 2003/0192054 to Birks et al. (“Birks”) and U.S. Patent No. 5,999,970 to Krisbergh et al. (“Krisbergh”). For at least the following reasons, this rejection is respectfully traversed.

Claim 1 now recites:

A method for expanding the functionality of a content receiver comprising a set-top box, said method comprising:

*installing a firmware patch in a downstream content receiver that configures said downstream content receiver to forward user commands upstream;*  
receiving a command from said downstream content receiver requesting Internet access; and  
executing the command if the command is not directed to a server further upstream, wherein executing the command provides access to the Internet to said downstream content receiver.

(Emphasis added).

Support for the amendment to claim 1 can be found in Applicant's original specification at, for example, p. 16-18.

In contrast, Birks is directed to providing additional storage capacity for a network personal video recorder. (Birks, abstract). According to Birks, a "set top box has bi-directional capability such that a request for the content may be propagated back to the server via a reverse data channel (RDC) within the transport network." (Birks, paragraph 0017). However, Birks does not teach or suggest the step of "installing a firmware patch in a downstream content receiver that configures said downstream content receiver to forward user commands upstream" as recited by claim 1. Birks does not teach or suggest the use of firmware patches with the set top box anywhere, let alone a firmware patch that updates a set top box to configure the set top box to forward user commands upstream.

Krisbergh is directed to "an access system and method for providing interactive access to an information source through a television distribution system." (Krisbergh, abstract). As such, Krisbergh teaches that a "command input into [a] terminal 54 by the inputting device 58 is transmitted by an upstream transmitter 106 on an RF-modulated upstream channel 22 of the television distribution network 12 from the terminal 54 to the cable headend equipment 36," where an information source, such as an Internet service provider, is in communication with the headend equipment 36 and services the request. (Krisbergh, col. 4, lines 45-65).

Like Birks, however, Krisbergh fails to teach or suggest the step of “installing a firmware patch in a downstream content receiver that configures said downstream content receiver to forward user commands upstream.” (claim 1). While Krisbergh acknowledges the use of software in a downstream device, Krisbergh makes no reference to if or how this software is able to be updated, let alone the use of a firmware patch to configure the downstream content receiver to forward user commands upstream. (Krisbergh, col. 8, lines 15-17; *See also* claim 1).

With regard to the subject matter of “installing a firmware patch in a downstream content receiver that configures said downstream content receiver to forward user commands upstream,” the recent Office Action also cites to U.S. Patent Application Publication No. 20040016002 to Handelman et al. (“Handelman”), which teaches the “remote reconfiguration of configurable hardware devices at consumer premises via communication networks.” (Handelman, paragraph 0021; *See also* Action, p. 7-8). However, Handelman is limited to hardware “circuit reconfiguration” and has nothing to do with “installing a firmware patch in a downstream content receiver that configures said downstream content receiver to forward user commands upstream.” (Handelman, paragraph 0023; claim 1).

It will be readily apparent to those having ordinary skill in the art that the methodology used to reconfigure a configurable hardware device is not the same as or analogous to the methodology used to install a firmware patch in a downstream content receiver. These two processes are separate and distinct, and one cannot reasonably deduct a process for updating firmware from a process for “circuit reconfiguration” in an FPGA or a CPLD. (Handelman, paragraphs 0023-25).

The recent Office Action also cites to U.S. Patent No. 7,305,357 to Hamilton (“Hamilton”) with regard to the concept of a firmware patch. (Action, p. 8). However,

Hamilton, which teaches “a system and method for delivering content on-demand by way of a cable network,” never once teaches or suggests firmware or a firmware patch anywhere, let alone the step of “installing a firmware patch in a downstream content receiver that configures said downstream content receiver to forward user commands upstream.” (Hamilton, abstract; claim 1).

Under the analysis required by *Graham v. John Deere*, 383 U.S. 1 (1966) to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the scope and content of the prior art, as evidenced by Birks, Krisbergh, Handelman and Hamilton, did not include the claimed subject matter, particularly the step of “installing a firmware patch in a downstream content receiver that configures said downstream content receiver to forward user commands upstream.” (claim 1).

The differences between the cited prior art and the claimed subject matter are significant because “[b]y updating the firmware, a downstream content receiver may then recognize commands 45 that an augmentation unit 25 may be capable of executing.” (Applicant’s specification, p. 17). Thus, the claimed subject matter provides features and advantages not known or available in the cited prior art.

Consequently, the cited prior art will not support a rejection of claim 1 under 35 U.S.C. § 103 and *Graham*. For at least these reasons, the rejection based on Birks and Krisbergh of claim 1 and its corresponding dependent claims should be rejected and withdrawn.

Claim 3 now recites:

A method for expanding the functionality of a content receiver comprising the steps of:

*installing a firmware patch in a downstream content receiver that configures said downstream content receiver to forward user commands upstream;*  
receiving a command from said downstream content receiver; and  
if the command is directed to an augmentation unit further upstream, directing the command to said augmentation unit further upstream;  
wherein the step of directing the command to an augmentation unit further upstream comprises the steps of:  
receiving data packets addressed to an upstream augmentation unit;  
generating a modulated carrier signal according to the data packets; and  
conveying the modulated carrier signal to an upstream interface.

(Emphasis added).

Support for the amendment to claim 3 can be found in Applicant's original specification at, for example, p. 16-18.

In contrast, none of the cited prior art teaches or suggests the subject matter of claim 3. Specifically, as has been amply demonstrated above, neither of Birks and Krisbergh teaches or suggests the claimed step of "installing a firmware patch in a downstream content receiver that configures said downstream content receiver to forward user commands upstream." (claim 3).

Under the analysis required by *Graham v. John Deere*, 383 U.S. 1 (1966) to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the scope and content of the prior art, as evidenced by Birks and Krisbergh, Handelman and Hamilton, did not include the claimed subject matter, particularly the step of "installing a firmware patch in a downstream content receiver that configures said downstream content receiver to forward user commands upstream." (claim 3).

The differences between the cited prior art and the claimed subject matter are significant because “[b]y updating the firmware, a downstream content receiver may then recognize commands 45 that an augmentation unit 25 may be capable of executing.” (Applicant’s specification, p. 17). Thus, the claimed subject matter provides features and advantages not known or available in the cited prior art.

Consequently, the cited prior art will not support a rejection of claim 3 under 35 U.S.C. § 103 and *Graham*. For at least these reasons, the rejection based on Birks and Krisbergh of claim 3 and its corresponding dependent claims should be rejected and withdrawn.

Claim 12 now recites:

A content receiver augmentation unit comprising:  
downstream interface;  
*a content receiver initiation unit that configures a downstream content receiver to forward commands by installing a firmware patch in the downstream content receiver;* and  
a command executive that receives a command from the downstream interface and determines whether the command is addressed to said augmentation unit or a unit further upstream, wherein said command executive executes the command if the command is not directed to a server unit further upstream.  
(Emphasis added).

Support for the amendment to claim 12 can be found in Applicant’s original specification at, for example, p. 16-18.

In contrast, none of the cited prior art teaches or suggests the subject matter of claim 12. Specifically, as has been amply demonstrated above, neither of Birks and Krisbergh teaches or suggests the content receiver augmentation unit having “a content receiver initiation unit that configures a downstream content receiver to forward commands by installing a firmware patch in the downstream content receiver.” (claim 12).

Under the analysis required by *Graham v. John Deere*, 383 U.S. 1 (1966) to support a rejection under § 103, the scope and content of the prior art must first be determined, followed by an assessment of the differences between the prior art and the claim at issue in view of the ordinary skill in the art. In the present case, the scope and content of the prior art, as evidenced by Birks and Krisbergh, did not include the claimed subject matter, particularly a “content receiver initiation unit that configures a downstream content receiver to forward commands by installing a firmware patch in the downstream content receiver.” (claim 12).

The differences between the cited prior art and the claimed subject matter are significant because “[b]y updating the firmware, a downstream content receiver may then recognize commands 45 that an augmentation unit 25 may be capable of executing.” (Applicant’s specification, p. 17). Thus, the claimed subject matter provides features and advantages not known or available in the cited prior art.

Consequently, the cited prior art will not support a rejection of claim 12 under 35 U.S.C. § 103 and *Graham*. For at least these reasons, the rejection based on Birks and Krisbergh of claim 12 and its corresponding dependent claims should be rejected and withdrawn.

Claims 4 and 15 were rejected under 35 U.S.C. § 103(a) as obvious in light of the combined teachings of Handelman, Krisbergh and Birks. This rejection is rendered moot by the cancellation of claims 4 and 15.

Claims 5 and 16 were rejected under 35 U.S.C. § 103(a) as obvious in light of the combined teachings of Hamilton, Handelman, Krisbergh and Birks. This rejection is respectfully traversed for at least the reasons given above in favor of the patentability of independent claims 1 and 12.

Claims 6-7 and 17-18 were rejected under 35 U.S.C. § 103(a) as obvious in light of the combined teachings of Hamilton, Krisbergh and Birks. This rejection is respectfully traversed for at least the reasons given above in favor of the patentability of independent claims 1 and 12.

Additionally, various dependent claims recite subject matter that is further patentable over the cited prior art. Specific, non-exclusive examples follow.

Claim 5 recites “wherein said firmware patch installed in the downstream content receiver minimally causes a processor in the downstream content receiver to: fragment an unexecuted command into one or more data packets; generate a modulated carrier signal according to the data packets; and convey the modulated carrier signal to an upstream augmentation unit.” Claim 16 recites similar subject matter. As none of the cited prior art teaches or suggests a firmware patch at all, the cited prior art references *cannot* teach these additional specifications of a firmware patch. For at least these additional reasons, the rejection of claims 5 and 16 should be reconsidered and withdrawn.

#### Conclusion:

In view of the foregoing arguments, all claims are believed to be in condition for allowance over the prior art of record. Therefore, this response is believed to be a complete response to the Office Action. However, Applicant reserves the right to set forth further arguments in future papers supporting the patentability of any of the claims, including the separate patentability of the dependent claims not explicitly addressed herein. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed.



The absence of a reply to a specific rejection, issue or comment in the Office Action does not signify agreement with or concession of that rejection, issue or comment. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment. Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicants expressly do not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

If the Examiner has any comments or suggestions which could place this application in better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,

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/Steven L. Nichols/

Steven L. Nichols

Registration No. 40,326

Steven L. Nichols, Esq.  
Managing Partner, Utah Office  
**Rader Fishman & Grauer PLLC**  
River Park Corporate Center One  
10653 S. River Front Parkway, Suite 150  
South Jordan, Utah 84095

(801) 572-8066  
(801) 572-7666 (fax)